AMERICAN LIBRARY ASSOCIATION
EXECUTIVE SUMMARY

Comments to Federal Communications Commission
CC Docket 96-45, Federal State Joint Board on Universal Service
April 10, 1996

ALA's separate comments in this proceeding emphasize implementation of the special provisions for libraries and schools in the Telecommunications Act of 1996.

TELECOMMUNICATIONS SERVICES TO BE PROVIDED AT A DISCOUNT TO LIBRARIES AND SCHOOLS

Recommendation: Any telecommunications service offered by a carrier commercially under tariff or through contract in a region should made available to libraries at a discount.

Rationale: The primary mission of libraries, in this electronic age, is to provide the American public with access to the full panoply of electronic information resources available either commercially or in the public domain. Thus, libraries require access to telecommunications services that allow them to provide public access to most commercially or publicly available information resources available at any given time over the telecommunications infrastructure.

DISCOUNT METHODOLOGY TO BE USED FOR TELECOMMUNICATIONS SERVICES FOR LIBRARIES AND SCHOOLS

Recommendation for all libraries: Any telecommunications service offered commercially under tariff or through contract in a region should be made available to libraries at the lower of either (1) the lowest price offered to any customer, or (2) the Total Service Long Run Incremental Cost (TS-LRIC). This recommendation has similarities to wholesale rates and covers a carrier's cost plus a return on investment. We recommend that it not require reimbursement from the universal service fund nor offsets to carrier contributions to universal service obligations except for libraries in rural, insular, and high cost areas.

Rationale: TS-LRIC is a forward looking incremental cost concept used in the telecommunications and other industries; it covers a company's cost of offering a service and has similarities to a wholesale price. ALA's recommended discount methodology was developed based on the following factors:

1. Maximizes benefit to schools and libraries;
2. Minimizes impact on the universal service fund
3. Is efficient to administer;
4. Evolves as technology evolves;
5. Is predictable and competitively and technologically neutral;
6. Can be harmonized with State approaches;
7. Allows for innovative packaging of low-cost services to schools and libraries; and
8. Can be equitably provided across the nation and mong demographic groups.

Providing discounted access for libraries will generate tangible and significant economic benefits to the telecommunications providers and to the broader information industry in the forms both of avoided costs and increased demand. Benefits directly to the industry include: increasing market demand for specialized information services; providing public exposure for new services; providing user test-beds for new services; improving user literacy; saving providers at least some advertising, marketing and educational expenses; and providing these cited benefits in a competitively neutral manner.

Recommendation for libraries in rural, insular, and high cost areas: In addition to the discount recommended above for all libraries, libraries in rural, isolated, and high cost areas should receive further discounts on both core universal services and special services through whatever mechanism is established to average the rates in these areas through the universal service fund.

Rationale: Even with major efforts underway by libraries themselves, their local sources of support, and with private sector, State, and Federal stimulus assistance, achieving high capacity, affordable connections to libraries in rural, insular, and high cost areas has encountered many special barriers due to the same characteristics of these areas that require special attention for residents in these areas. Further, for these libraries, telecommunications costs are a much higher percentage of overall library budgets.

TERMS AND CONDITIONS TO MEET LAW'S REQUIREMENTS AND TO IMPLEMENT DISCOUNT MECHANISMS

Recommendations:

Carriers. Carriers would be required to certify that their quoted rate is the TS-LRIC rate and that no customer is being offered the service at a lower rate. Publicly available information would be needed on telecommunications services available commercially in a region under tariff or by contract arrangement.

Libraries. ALA agrees that written certification is a simple, effective and appropriate mechanism for ensuring compliance with the Telecommunications Act's terms and conditions required of libraries, such as using discounted telecommunications services for educational purposes, not reselling discounted telecommunications services and network capacity, assuring a "bona fide request" from a library, and meeting library eligibility requirements.

ALA provides examples and documentation of the broad educational purposes libraries serve and their role in promoting literacy, including technological literacy; of the educational and technological support role of library agencies, cooperatives, consortia and networks. ALA makes recommendations to ensure that probitions against reselling do not discourage libraries from sharing networks with parties not eligible to receive support nor discourage community partnerships.

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CC Docket 96-45, Federal State Joint Board on Universal Service
April 10, 1996

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of	)	
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Federal-State Joint Board on Universal Service	)	CC Docket No. 96 - 45
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COMMENTS OF
AMERICAN LIBRARY ASSOCIATION

1. INTRODUCTION

The American Library Association (ALA) respectfully submits its comments in the above referenced proceeding. The American Library Association, founded in 1876, is the oldest and largest library association in the world. Its concerns span all types of libraries: state, public, school, academic, and special libraries. With a membership of more than 57,000 librarians, library trustees, library educators, friends of libraries, and other interested persons from every state, ALA is the chief advocate for the people of the United States in their search for the highest quality of library and information services.

The primary mission of libraries, in this electronic age is **to provide the American public with access to the full panoply of electronic information resources available either commercially or in the public domain.** Libraries need access to affordable telecommunications services that support this mission. Libraries serve this mission by providing access to global electronic resources such as the Internet's World Wide Web (WWW), by creating and offering their own public electronic information services, and by developing community information infrastructures.

This proceeding is critically important to assure equitable access to all Americans and is a unique opportunity and responsibility to recognize the role that libraries serve as vehicles for universal service.

2. GOALS AND PRINCIPLES OF UNIVERSAL SERVICE SUPPORT MECHANISMS [Paragraph 7]

ALA believes that the principles of universal service articulated in Section 254(b) of the Telecommunications Act of 1996 explicitly and implicitly recognize libraries as instruments of universal service policy and as effective vehicles to serve the public interest.

It is vital that libraries be viewed, not as recipients of universal service benefits, but as institutional providers of public access and, hence, as instruments of universal service policy. The global information infrastructure has several characteristics that make traditional universal concepts ineffective or insufficient. It offers a vast array of services and a wide selection of connectivity options, some of which are relatively expensive under any system of pricing. Technology is changing rapidly, and many of the most interesting and useful information services are at the leading edge. Hence, the concept of the residence as the sole focus of universal service is much too limited. If the policy goal is to see that everyone has full, equitable, and affordable access to the rich resources of the infrastructure, then public institutions such as libraries, schools, health care institutions, and community networks will play a vital role in providing access.

Access is not all that libraries provide. Libraries bring organization and structure to the morass of information resources now available electronically. They train users to navigate the networks on their own, expanding libraries' age-old responsibilities in improving literacy, by teaching electronic information skills needed in the modern world.

In these roles, libraries act in partnership with both the information and communications industries and with government to assure that the public, both individually and as a society, benefits fully from the new electronic media. To do this, libraries need to have affordable access to the broadest possible range of information and communication services; we thus recommend a very broad interpretation of "core," "special," and "advanced" services.

Libraries are also economically efficient instruments of universal service goals. As a National Research Council report states,

> In research and education outputs, inputs, and the relationship between them are hard to characterize and control. Yet cost savings can be an important benefit of the use of information infrastructure, because they are inherent in the notion of networks and information infrastructure as shared resources. That sharing enables broader use of resources than would be possible if each researcher, educator, librarian, or student had to be individually capitalized.[1]

This same National Research Council report adds that the research, education, and library "communities have been information providers as well as consumers, and they will continue to make important contributions to network information resources in this regard in the future. That these communities typically do not charge for their information services might be an important factor when considering how to charge them for their network access. Another important consideration is that these communities also actively train their constituents in network use."[2]

It is also important to note that providing discounted access will generate tangible and significant economic benefits to the telecommunications providers and to the broader information industry in both avoided costs and increased demand. Such benefits, while in-

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[1]NRENAISSANCE COMMITTEE, NATIONAL RESEARCH COUNCIL, REALIZING THE INFORMATION FUTURE: THE INTERNET AND BEYOND 142 (1994).

[2]*Id.* at 143. *See also* Appendix A.

generally nonappropriable, would accrue not only to a particular firm making the investment, but to the industry and the economy as a whole.

3. SUPPORT FOR RURAL, INSULAR, AND HIGH-COST AREAS [Paragraph 17-22]

Core Services. The core services proposed in paragraphs 16-22 of the NPRM are of particular importance to libraries and their constituencies. The core service requirements of DTMF, single-party line, and quality of service all have a direct bearing on the ability of libraries to offer timely, efficient, and effective access to basic information services to remote users. DTMF and single-party lines are currently necessary for modem usage. Any definition of core universal service should take into account the service technology required for entry-level access to the Internet.

Service Quality. Service quality bears on the ability to **effectively** transmit data at the maximum speed at which a modem is rated. If poor line quality exists because of dropout, noise, or distortion, even the fastest modem on the market will be reduced to a snail's crawl. As more and more graphical and multimedia information becomes available, high service quality will be essential to service that provides for the public convenience. As modems or comparable technologies evolve, the definition of universal service must reflect new levels of service quality.

4. SCOPE OF UNIVERSAL IN THESE SERVICE AREAS [Paragraph 24]

Support for rural, insular, and high cost areas should extend beyond residential and single-line businesses to libraries and schools. **Core universal services should be made available to all eligible libraries and schools under the discount methodology ALA**

recommends below for special universal services for libraries and schools. Additionally, libraries and schools in rural, insular, and high cost areas should have access to core universal services at further discounts through whatever mechanism the Commission establishes to average the rates in these areas through the universal service fund.

Even with major efforts underway by libraries themselves, their local sources of support, and with private sector, state, and federal stimulus assistance, achieving high capacity and affordable connections to libraries in rural, insular, and high cost areas has encountered many barriers. Examples of these difficulties for rural and other libraries are provided in Appendix B.

5. SPECIAL SERVICES FOR LIBRARIES AND SCHOOLS [Paragraph 77-80]

ALA recommends, consistent with the Commission's proposal in paragraph 77, that both services covered under 254 (c)(1) and 254 (c)(3), core and special universal services, be made available pursuant to discounts. These should include any telecommunications services offered in the region under tariff or contract arrangement. Such services would fall within the definition of telecommunications services but need not be limited to regulated services. This definition of special services would be self advancing as technology advanced, since it would constantly evolve to include new services offered commercially.

It is in the consideration of **special services** that the important role that libraries serve as instruments of universal service policy is especially evident. The potential and real benefit of recognizing libraries as instruments of universal service is evidenced by the penetration of library services throughout the nation and by public access to electronic information through our nation's libraries. There are 15,946 public library facilities and 97,976 libraries in public and

private schools.[3] A 1990 survey conducted by Louis Harris and sponsored by Equifax, Inc., found that six out of ten Americans interviewed -- representing 66% of 122 million people -- used public library services.[4]

According to research led by Dr. Charles R. McClure for the National Commission on Libraries and Information Science (NCLIS), considering all sizes of public libraries, only 20.9% have some Internet access. This falls to approximately 13% for rural libraries. In this same study, the cost of connection remains the dominant factor affecting library involvement with the Internet. This is especially so in the Midwest and West.[5]

A Public Library Association /PLDS 1995 Survey showed that in libraries serving communities of 100,000 or more, 68.3% have some type of Internet access but only 23.3% provide public access terminals.[6] The St. Joseph County Public Library, in Indiana, has been collecting information since November 12, 1994 on public library World Wide Web (WWW) sites. They list nearly 200 public libraries that maintain WWW sites in the United States. This represents approximately 2 1/4% of the 8,929 public library systems.[7]

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[3]American Library Association, *How many libraries are there in the United States*, http://www.ala.org/library/fact1.html (Mar. 9,1996)

[4]ALAN F. WESTIN & ANNE L. FINGER, USING THE PUBLIC LIBRARY IN THE COMPUTER AGE: PRESENT PATTERNS, FUTURE POSSIBILITIES (n.d.) *See also* Appendix C.

[5] CHARLES R. MCCLURE ET AL., NATIONAL COMMISSION ON LIBRARIES AND INFORMATION SCIENCE, PUBLIC LIBRARIES AND THE INTERNET: STUDY RESULTS, POLICY ISSUES, AND RECOMMENDATIONS 8-9 (Final Report 1994).

[6]*Technology in Public Libraries 1995 Survey in* STATISTICAL REPORT 1995 PUBLIC LIBRARY DATA SERVICE 121-140 (1995)

[7] St. Joseph County Public Library, *Public Libraries on WWW Servers*, http://sjcpl.lib.in.us/Database/PubLibServFind.html country field keyword "United States" (April 2, 1996). *See also* Appendix D.

The opportunities and the challenges for telecommunications applications in school library media centers (LMC's) is demonstrated in the research conducted by the U.S. National Commission on Library and Information Science and the American Library Association. In the NCLIS-ALA survey of LMC's in twelve states, only one state, Massachusetts, reported that more than half of its elementary school LMC's have computers with modems. Seven of the twelves states reported that more than half of their secondary school LMC's have computers with modems.

Only one state, again Massachusetts, reported that more than half of its elementary school LMC's had Internet connections; the rest of the states fell below 15 percent for elementary schools Internet capability. Three states reported that only a quarter of secondary school LMC's had Internet connections.[8]

In another survey by the Illinois State Board of Education, Center for Learning Technologies, it was reported that, while the average number of computers per school for student instruction was 46, the average number of modems attached to computers was only 1.6. That means only about 3% of school/LMC computers had modem capability. Even where a school or LMC had dial-in access to outside computer resources, it was used for learning, on average, only 4.3 hours per week. "Furthermore, while the Internet and Illinet On-line were available in about one-third of the schools, these information resources were available to only 16 percent of their students.....Only one-third of the schools had access to regional library system databases, Illinet

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[8]MARY JO LYNCH ET AL., PUBLIC SCHOOL LIBRARY MEDIA CENTERS IN 12 STATES, REPORT OF THE NCLIS.ALA SURVEY (1994).

On-line, library catalogs of other libraries in the area, and the Internet.."[9] A 1995/NCES Westat study showed that 50% of public schools have some access to the Internet.[10]

Functionalities Supported. Examples of the 200 libraries offering web sites included the Alachua County Library District in Gainesville, Florida (http://www.acld.lib.fl.us/), the St. Charles City-County Library District, in St. Peters, Missouri (http://www.win.org/library/scccld.htm), and the Seattle Public Library, in Seattle, Washington (http://www.spl.lib.wa.us/). Like their counterparts, they maintain WWW sites and make full use of this medium's graphical capabilities to provide information about the libraries' materials, to act as a host to community information, and to provide a neighborhood gateway to national and international resources such as:[11]

- The Gettysburg address (Library of Congress)
- An early draft of the Declaration of Independence (Library of Congress)
- Clips of the 1996 U.S. Presidential candidates (CNN AllPolitics Web page)
- The Dead Sea Scrolls (University of North Carolina)
- A movie showing the sun's corona (University of Amsterdam, Netherlands)
- A history of traditional Japanese pottery (NJK Company, Japan)
- The Heart: A Virtual Exploration - a Web page put up by the Franklin Institute Science Museum in Philadelphia.
- StockMaster - graphs of stock market activity including the S&P500 and NASDAQ Composite indexes along with data on 452 other companies, hosted at the Massachussetts Institute of Technology Artificial Intelligence Laboratory.

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[9]MICHAEL W. SKARR & JOSEPH A. SPAGNOLO, ILLINOIS STATE BOARD OF EDUCATION, LIBRARY, TECHNOLOGY AND INFORMATION RESOURCES, SURVEY: A PROFILE OF ILLINOIS SCHOOLS 2-3 (1995).

[10]SHEILA HEAVISIDE & ELIZABETH FARRIS, WESTAT, INC., ADVANCED TELECOMMUNICATIONS IN U.S. PUBLIC ELEMENTARY AND SECONDARY SCHOOLS, 1995 3 (1996).

[11]Office for Information Technology Policy, American Library Association, *Internet Services in Libraries*, http://www.alawash.org/fcc_appendix_e.html (Mar. 9, 1996). *See also* Appendix E.

The sites and applications above are literally just a few of the thousands of sites that make use of multimedia formats to provide access to information. Libraries, both as access points and hosts to this type of information, require high speed telecommunications services. **Text-based access to the Internet is not effective public access. Broadband connections are required to provide timely and reasonable public access for all library users and lifelong learners and for libraries to develop and mount unique sources of electronic information.**

According to the Wall Street Journal (December 27, 1995, B1 - Appendix F), it takes approximately 2.3 minutes to download a simple 2 Mb image over a 14.4 Kbps line. A more complex image of 16 Mbs would take 18.5 minutes over that same line, while a short animation or video clip could take 1.4 hours. Over a 56 Kbps ISDN line, a simple image takes 35.7 seconds, a complex image 4.8 minutes, and a short video clip approximately 21.5 minutes to download. Even a 30 second clip of one of the U.S. presidential candidates takes approximately 4 minutes to download over 10 Mbs Ethernet LAN, with a 56Kbps connection.[12] A State of the Union address would take considerably longer.

And this type of multimedia content will only become more prevalent. Companies such as CNN Online, Time, 20th Century Fox, Turner Online, USA Today Info, and others are all moving towards releasing new multimedia content on the Internet.[13]. And while compression and caching techniques may help to alleviate some of the bandwidth pressure brought on by increased content in this area, enough capacity must be provided so that in libraries, classrooms,

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[12] Cable News Network, Inc./Time Inc. New Media, *Campaign '96 Ads*, http://allpolitics.com/campaignland/campaign.96/index.shtml (Apr. 9,1996).

[13] *Top Web Sites to Add Interactive Multimedia*, INFORMATION TODAY, Jan. 1996, at 33, 35.

and school media centers, simultaneous use of several multimedia workstations does not cause onerous delays for any user. Even in small communities where libraries serve populations of under 25,000, it is not unusual to see library facilities offering multiple terminal configurations in order to provide adequate access to patrons.

Many library systems, such as the state-wide Sailor network in Maryland, already offer modem access to their patrons, enabling them to access library services and collections from home.[14] And libraries play an additional role as community centers, providing access points for the public to participate in satellite broadcasts and distance learning opportunities. Libraries in Iowa, for example, are planning to provide interactive meeting rooms connected to the Iowa Communications Network (ICN) to offer educational programming to local citizens.

The library role in providing access to government information was recently illustrated by the New York State Library: "Official [state] documents created after January 1995 are sent, in electronic form, to the New York State Library, which makes them available online on its ftp site and via its web and gopher to anyone who has Internet access. However, without a robust Internet connection on the part of the recipient, people can't reasonably take advantage of this service."[15]

A draft report from the Government Printing Office, now being circulated for comment, discusses the implications of new communications media for access to government information. The report envisions depository libraries, in particular, providing high speed terminal access to

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[14]Maryland State Department of Education, Department of Library Development Services, *Frequently Asked Questions*, SAILOR, http://sailor.lib.md.us/sailor/FAQ/nos.html (Apr. 9, 1996).

[15]New York State Library, *Statement for ALA re FCC*, vjudd@unix2.nysed.gov (Mar. 29, 1996).

most government information.[16] Clearly, in the longer term, all public and research libraries will be expected by the Federal government to serve as electronic access points to government information; government information policy at both the Federal and state levels is being framed around that assumption. To provide such access to the wide range of government documents and on-line information resources will require these libraries to have affordable access to highly advanced communication services.

Libraries need to perform many functions today. They act as digital gateways to national and international resources on the information superhighway, providing access both through in-house workstations and through support of local modem connections. They also act as digital providers of local community, government, and cultural information and they are a critical community resource in providing access to sophisticated telecommunications services to the local community.[17]

To continue to perform these functions successfully, however, libraries require a range of switched broadband, high-speed, interactive telecommunications services that allow libraries to support users both on site and remotely; that allow for efficient and timely delivery of multimedia information to a number of simultaneous user sessions; and that support delivery of quality interactive, multimedia services for distance learning and other purposes. **It is critical**

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[16]U.S. GOVERNMENT PRINTING OFFICE, STUDY TO IDENTIFY MEASURES NECESSARY FOR A SUCCESSFUL TRANSITION TO A MORE ELECTRONIC FEDERAL DEPOSITORY LIBRARY PROGRAM (draft March 29, 1996). *Also available via* U.S. Government Printing Office, *Draft Report to Congress: Study to Identify Measures for a Successful Transition to a More Electronic Federal Depository Library Program*, http://www.access.gpo.gov/su_docs/dpos/rep_cong/efdlp.html (Mar. 9, 1996). *See also* Appendix G.

[17]Fred W. Weingarten, *Superhighway Speed Limit Abolished; Information Policy Swerves*, AMERICAN LIBRARIES, Jan. 1996, at 16-17. *See also* Appendix H.

that libraries have access to telecommunications services that allow them to provide public access to most commercially or publicly available information

Since many of the services that are most useful to lifelong learners are and will continue to be the most advanced services, and since libraries can provide these services to many people with one point of access, leading-edge special services for libraries must be interpreted as broadly as possible to include any telecommunications services commercially available within the regions they serve. This interpretation allows libraries to serve multiple roles such as:

- providing leading-edge access to new services that may not yet be broadly available or affordable,
- providing access to resources that, while available to the residence, are either expensive or infrequently used, and
- providing basic access for those patrons who do not otherwise have access.

6. WIRELESS TECHNOLOGIES [Paragraph 81]

Regarding the Commission's request for comment on wireless technologies (paragraph 81), where these technologies are commercially available, they should be offered to schools and libraries at a discount, consistent with our comment on paragraph 77. In Canton, Ohio about 20 schools have made use of wireless technology, to connect high schools, elementary, and junior high schools with T1- like speeds at lower ongoing costs. Many public libraries are located near the schools that use this technology and school libraries could have wireless access to the public library's collections.[18] Wireless technologies could also be useful for library patrons who have

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[18]Dave Simmons, Executive Director, MOLO Regional Library System, *Responses to your request for information on Telecom in Libs.* dsimm@winslo.ohio.gov (Mar. 26, 1996).

laptops or notebooks and who could be supplied with appropriate adaptors by the library[19]. This could help alleviate the need for extensive wiring throughout a building and also for the purchase of additional workstations. This would be especially useful in older facilities where internal wiring is cost prohibitive because of issues like asbestos use in the facility.[20] Wireless technologies are also useful in library outreach services. In Gloucester, Massachusetts, there is currently a proposal to equip a new bookmobile as a bookmobile/technology center for residents who cannot get to the library.[21]

7. REVIEWS REGARDING SPECIAL SERVICES [Paragraph 81]

A principal purpose of special services is to allow libraries to serve as public access points to the technological "leading edge" of information services. Library needs will change rapidly and unpredictably. The problem is to provide a review process that is flexible, yet efficient for dealing with leading edge technology.

ALA proposes to require that any service offered commercially under tariff or through contract in a region also be offered to schools and libraries at a price less than or at the Total Service Long Run Incremental Cost (TS-LRIC). This would resolve part of the review issue by relying on the marketplace and would not require the Commission to engage in some form of

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[19]Marilyn Okrent *for* Gary E. Strong, Director, Queens Borough Public Library, GSTRONG@QUEENS.LIB.NY.US, *FCC RESPONSE*, marilyno@queens.lib.ny.us (Mar. 29, 1996). *See also* Dennis G. Eksten, Trustee &Legislative Representative, Legislative Representative North Suburban District Library, Loves Park, IL, *FCC NPRM DOCKET NO. 96-45*, personal e-mail, Mar. 29, 1996).

[20]Garvin F. Brakel, Manager, Automation Systems, Spokanne Public Library, *Universal Service*, gbrakel@spokpl.lib.wa.us (Mar. 29, 1996).

[21]Paul J. Kissman, Library Information Systems Specialist & Robert C. Maier, Head of Library Development, Massachusetts Board of Library Commissioners. *Responses to ALAWASH survey on FCC NPRM*, pkissman@tiac.net (Mar. 29, 1996).

rulemaking every time a new service appeared for consideration as a "special service." However, a periodic review of the impact of the Commission's Section 254 rules on libraries and schools is recommended to determine whether other adjustments are needed.

8. DISCOUNT METHODOLOGY [Paragraph 83]

Any telecommunications service offered commercially under tariff or through contract in a region should be made available to libraries at the lower of either (1) the lowest price offered to any customer, or (2) the Total Service Long Run Incremental Cost (TS-LRIC). This recommendation has similarities to wholesale rates and covers a carrier's cost plus a return on investment. We recommend that it not require reimbursement from the universal service fund nor offsets to carrier contributions to universal service obligations except for libraries in rural, insular, and high-cost areas.

A June 1995 NCLIS report, Internet Costs and Cost Models for Public Libraries, shows that for a public library providing WWW services and supporting multiple, multimedia-capable workstations with Internet access at T-1 speeds, communications hardware and fees represent approximately 8% of one-time costs and about 29% of a library's ongoing costs.[22] (See Appendix I, NCLIS June 1995 Report, pps 26&27). More significantly, the NCLIS model's one-time cost of $124,555 and recurring costs of $93,830 to equip just one library with the capability to provide WWW services to the community represents 24% and 18% respectively of the average budget of a total library **system**.[23]

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[22]CHARLES R. MCCLURE ET AL., NATIONAL COMMISSION ON LIBRARIES AND INFORMATION SCIENCE, INTERNET COSTS MODELS FOR PUBLIC LIBRARIES 26-27 (final report 1995). *See also* Appendix I.

[23]GOVERNMENTS DIVISION, BUREAU OF CENSUS FOR NATIONAL CENTER FOR EDUCATION STATISTICS, PUBLIC LIBRARIES IN THE UNITED STATES: 1993 62-63 (1995)

ALA recommends this discount methodology based on the following factors:

1. Maximizes benefit to schools and libraries.

2. Minimizes impact on the universal service fund.

3. Is efficient to administer.

4. Evolves as technology evolves.

5. Is predictable and competitively and technologically neutral.

6. Can be harmonized with State approaches.

7. Allows for innovative packaging of low-cost services to schools and libraries.

8. Can be equitably provided across the nation and among demographic groups.

ALA recommends that the discount methodology used in calculating the price of services offered to schools and libraries be the Total Service Long Run Incremental Cost (TS-LRIC). TS-LRIC is a forward-looking incremental cost concept used in the telecommunications and other industries. TS-LRIC covers a company's cost of offering a service that includes the cost of capital which includes a return to equity. Appendix J provides an illustrative example of the major components of this methodology. As can be seen from page 5 of Appendix J, network equipment costs, the cost of capital, and expense costs are all factored into the overall long-run incremental cost for a particular service.

1. Maximizes benefit to schools and libraries.

This methodology, by looking at the long-run incremental cost of providing a service to an additional customer, makes commercially available services affordable to the maximum number of schools and libraries. And because TS-LRIC includes the cost of capital, a return to equity at market rates is returned to the service provider.

2. Minimizes impact on the universal service fund.

The impact, if any, on the universal service fund would be minimal. ALA believes it likely that in the vast majority of cases, the TS-LRIC rate will be sufficient to provide services at affordable rates to schools and libraries. **In these cases, no subsidy would be needed and there would be no need for offsets or reimbursements from a universal service fund.** [NPRM, Paragraph 88] In a small number of cases, in rural, insular, or high cost areas where the TS-LRIC rate might nonetheless still be prohibitively high, some additional support would be required to bring special services to schools and libraries through universal service fund mechanisms.

3. Is efficient to administer.

As noted above, because in the vast majority of cases no subsidy would be needed, this approach minimizes the amount of administration required. Plans and long-range cost estimates would need to be filed for public review by carriers, as is current practice, but this allows for purchasers and suppliers to negotiate directly with each other for services and rates without the need for additional regulatory rulemakings and proceedings.

4. Evolves as technology evolves.

Because this approach relies on costs associated with commercially available technology, it is self advancing. As new telecommunications services become commercially available, their total service long-run incremental costs can be assessed to establish an appropriate discount rate for schools and libraries.

5. Is predictable and competitively and technologically neutral.

This approach provides costs that are predictable both to the purchasers and suppliers of services. The approach is competitively and technologically neutral, not favoring any one service provider

nor any particular technology.

6. Can be harmonized with State approaches.

TS-LRIC is a formula for cost allocation that is well established and accepted by economists and regulators. It is being used in some state regulatory processes.[24] This discount methodology can be adapted for intrastate as well as interstate services, thus achieving the harmonization sought by the FCC in its NPRM.

7. Allows for innovative packaging of low-cost services to schools and libraries

The TS-LRIC model is flexible enough to accommodate a variety of cost inputs, allowing carriers the ability to package low-cost services that are best tailored to the needs of schools and libraries.

8. Can be equitably provided across the nation and among demographic groups.

The discount methodology is not geographically or demographically specific.

As noted above, the universal service costs associated with the proposed approach are primarily those costs associated only with supporting schools and libraries in rural, insular, and high-cost areas. The TS-LRIC methodology does provide a built-in return to equity, and by providing this discount, carriers are able to reach a larger market segment of schools and libraries than they might otherwise without this discount. This larger market segment, through TS-LRIC,

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[24]For example Mich. 1991 Pub. Act 179, as amended by 1995 Pub. Act 216 MCL 484.2101 et seq. Article 1, § 102 (y) states " "Reasonable rate" or "just and reasonable rate" means a rate that is not inadequate, excessive, or discriminatory. A rate is inadequate if it is less than the total service long run incremental cost of providing the service." (Emphasis added). California in Decision 95-07-050 July 19, 1995, before the Public Utilities Commission of the State of California, a Coalition of consumers, interexchange carriers and alternative access providers proposed using TSLIRC to study local exchange carriers costs.

still makes a positive aggregate contribution to a provider's cost of capital, which could offset any reduction in revenues resulting from using a lower TS-LRIC price over a "what-the-market-will-bear" price.

Furthermore, it is important to note again, that providing discounted access will generate tangible and significant, though possibly difficult to measure, economic benefits to the telecommunications providers and to the broader information industry in both avoided costs and increased demand.

These economic benefits are, in general, nonappropriable. That is, they accrue not only to a particular firm making the investment, but to the industry and the economy as a whole. This is, in our view, another powerful argument for taking an expansive approach to providing special discounted services for libraries.

Benefits to the industry include:

- Libraries **directly increase the market demand for specialized information services** by concentrating sub-threshold individual demands in the community. Many leading-edge information services, especially those that require high capacity communication connections, are expensive. Though possibly available residentially, few individuals would have a need for them sufficient to justify the investment in equipment and connectivity.

- Libraries **provide public exposure for new services.** Libraries are places where individuals can learn to use new services with professional guidance and without risk, thereby helping to stimulate public demand for new services.

- Libraries **provide user test-beds for new services**. Little is yet known in the world of advanced information services about user needs, usage patterns, and usability issues. By making new services available in a community setting, service providers can get valuable feedback on these questions that will shape their broader design and marketing efforts at minimal cost.

- Libraries **improve user literacy**. For the foreseeable future, most advanced services will require sophisticated expertise to install, and, in many cases, to use. Thus, direct

delivery to the home, even if technically and economically feasible, may not be the best strategy for initial deployment, and resistance of people to using new technology they do not understand may become a major barrier to residential use of advanced information services. Libraries are already beginning to expand their traditional role, guiding and equipping users to strike out on their own. These services will partly offset the need for industry providers to offer such user consultation and guidance.

- Libraries, in improving user literacy, **save all providers some advertising, marketing, and educational expenses**, thereby reducing their overall costs of service.

- Libraries **provide the above cited services in a "competitively neutral" manner** that will benefit an entire market.

9. TERMS AND CONDITIONS FOR CARRIERS

The publicly available information required from carriers to enable ALA's recommended discount mechanism to work effectively includes:

- information about tariffed services;
- information about services offered under contract; and
- information about the TS-LRIC rate for a needed service.

Some of this information is not required to be made public. This requirement could be developed to avoid disclosure of the most proprietary information through publication of only aggregated data. Companies could be required to certify that the quoted rate is the TS-LRIC rate and that no customer is being offered the service at a lower rate. If the service is being offered to any customer below the TS-LRIC rate, the lowest rate offered should be made available to libraries and schools.

10. TERMS AND CONDITIONS FOR LIBRARIES

Certification. ALA agrees that written certification is a simple, effective, and appropriate mechanism for ensuring compliance with these terms and conditions imposed on libraries entitled to discounts.

Education Purposes. Public libraries, libraries in educational institutions, and libraries meeting conditions required for participation in not-for-profit interlibrary cooperative arrangements receiving public funding serve an educational function and use telecommunications services for educational purposes, as required by the Act. Libraries advance literacy and are sites where people learn how to access and use the new information infrastructure. Continual technological change is the new norm in the information realm. As the fundamental tools for information creation, communication, and use are transformed by electronic technology, so are the skills required to use those tools. More than ever before, people continually need to learn new information technologies and skills, for their jobs, their avocations, and their personal lives.

The educational role of the public library in promoting technological and information literacy was pointed out in a 1994 National Research Council report:

> Unlike most sites for public access terminals (which range from government buildings to universities, from shopping malls to laundromats), public libraries have trained staff available for consultation and training in the use of the library's resources, including electronic information resources. A logical extension is to provide training for the public in the use of networks and networked information resources plus point-of-use consultation, guidance, and technical assistance, as well as to develop on-line training and interpretative aids.[25]

Libraries meeting the Act's eligibility requirements should be considered to be using discounted telecommunications services and network capacity for educational purposes.[26] Eligible libraries and library entities should be able to certify to this effect with the understanding

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[25]NRENAISSANCE COMMITTEE, NATIONAL RESEARCH COUNCIL, *supra* note 1 at 137.

[26]See Appendix K for documentation regarding libraries' educational roles, their roles in promoting literacy and the high value the public places on libraries' educational roles. Also note that Appendix A, referenced earlier, consists of Chapter 3, "Research, Education, and Libraries," from the 1994 NRC report, including a broad discussion of library roles.

that the same telecommunications services and network capacity that are used to support public and student services are also being used for library and school administrative and system support purposes, teacher and librarian professional and technical support and development, etc.

Certification That Services Will Not Be Resold. The Act's requirement that discounted telecommunications services and network capacity may not be "sold, resold, or otherwise transferred by such user in consideration for money or any other thing of value" should be interpreted with care. As the NPRM notes, the requirement should not discourage libraries/schools from sharing a network with parties not eligible to receive support nor discourage partnerships between libraries/schools and their communities.

We recommend certain limitations to the Act's requirement. Restrictions on resale of telecommunications services or network capacity should not be interpreted to preclude computer lab fees for students, or user fees for special applications, resources, or services. Transferring services/capacity for money or other value among eligible entities should not be forbidden, so that state and regional consortia and cooperatives of libraries and schools are not precluded from customary collaborative activity. Multitype library and educational arrangements using public funding to enable the sharing of library resources and educational information should be able to require financial or other support from members for telecommunications services without triggering ineligibility of the cooperative arrangement for the discount. An educational or library resource sharing network eligible for the discount should not become ineligible simply through sharing a network with government entities, higher education institutions, community social service agencies or other nonprofit entities.

The role of library agencies, cooperatives, consortia, and networks in increasing public

access to information, spurring library use of new technology, and aggregating demand is documented in Appendix K.

Bona Fide Request. The Commission's suggestion that any person qualified under State or local law to order telecommunications services for schools or libraries be deemed capable of making a "bona fide request" for discounted services seems simple and reasonable. However, the Commission should recognize that this may include persons not directly connected with schools or libraries, such as officials in library or educational networks, state government procurement offices, or telecommunications departments.

Similarly, the suggested certification requirement is also sufficient to ensure compliance with library eligibility conditions--that a library not operate as a for-profit business, and that it is eligible for participation in state-based applications for library services and technology funds under Title III of the Library Services and Construction Act.

11. ENHANCING ACCESS TO ADVANCED SERVICES FOR SCHOOLS, LIBRARIES AND HEALTH CARE PROVIDERS [PARAGRAPHS 109-111]

Based on the Act's use of such phrases as "information services," and its legislative history discussing the ability of libraries to obtain specific kinds of materials such as government information, "advanced" services for libraries should include a broader group of services than "core" and "special" services for libraries. The same definition of libraries should apply.

The Commission should also consider encouraging pricing mechanisms that provide predictability and stability for publicly funded institutions such as libraries and schools that must budget funds up to two years in advance and that cannot pass on the costs of infrastructure to users. Mechanisms such as flat-rate pricing would encourage libraries and schools to explore use